

## A Decade of Prehistoric and Protohistoric Archæology in India, 1951-1960

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### INTRODUCTION

That the *Asian Perspectives* has decided to include within its compass the countries of India, Pakistan and Ceylon is welcome news, and its Editor, Professor Wilhelm G. Solheim II, deserves to be congratulated on his breadth of vision, for there is no gainsaying that archæological discoveries in these countries not unoften have a bearing on their counterparts in the land segregated as 'Far East'. Indeed, is not the influence of Buddhism on various cultural aspects—metaphysical as well as material—of the life of the people in eastern Asia a matter of common knowledge? Or, is not a visitor to the temples at Angkor reminded of their Hindu prototypes in India? Though no doubt less known, yet in no way less significant, are the similarities between the Early Stone Age 'chopper-chopping' tools (Fig. 2) or the (? Neolithic) shouldered axes (Fig. 6) from India and their counterparts in eastern Asia. In the case of the shouldered axes, for all one knows, the influence might have travelled in the reverse direction, from eastern Asia to India. Thus, it is hoped that other readers too of the *Asian Perspectives* will regard this Indo-Pak-Ceylon 'intrusion' as a not unwelcome event.

Elsewhere in this issue is a summary of the archæological work done in India during the year 1961-62; and it is understood that relevant issues in future will also be having similar yearly reviews. Thus, in order that the readers may grasp the significance of these yearly discoveries and place them in the right perspective, it is felt that a résumé, of necessity very general in nature, of the recent developments in the prehistoric and protohistoric archæology of the country may be placed before them. And the present note is the outcome, covering the decade 1951-60.

Before, however, getting down to the résumé itself, it would perhaps be worth while to let the readers know something about the organization of archæological activities in India. The Constitution of India (adopted in 1950) permits the Central Government as well as individual State Governments to deal with the subject, their respective spheres, however, being duly defined. Thus, for obvious reasons, the biggest archæological organization in the country is that of the Central Government, viz. the Archæological Survey of India, which has ten Circles and six specialized Branches spread over the country. Most of the State Governments too have by now their own Departments of Archæology; the more active amongst them, however, are those of Andhra Pradesh, Gujarat, Madhya Pradesh, Maharashtra, Mysore, Rajasthan and West Bengal. The Governmental output is greatly supplemented, mainly on the research and excavation side, by that of universities and research institutes, the more noteworthy of them being the Universities of Allahabad, Banaras, Baroda, Calcutta, Madras, Patna and Saugor, and Deccan College

Post-graduate and Research Institute, Poona, and K. P. Jayaswal Research Institute, Patna. Thus, what is summarized below is not the produce of any single organization but the combined result of the efforts of all the above-mentioned organizations and the individuals behind them. However, for want of space as well as to avoid bothering our readers, most of whom are likely to be new initiates to Indian archaeology, it is proposed not to burden this short narrative with names of individuals and organizations, and all concerned are requested to forgive the author for the omission.

### THE STONE AGE

To begin with the Early Stone Age. In India, two major industries of this Age have been recognized: the 'Madrasian' of the south, characterized by bifacial

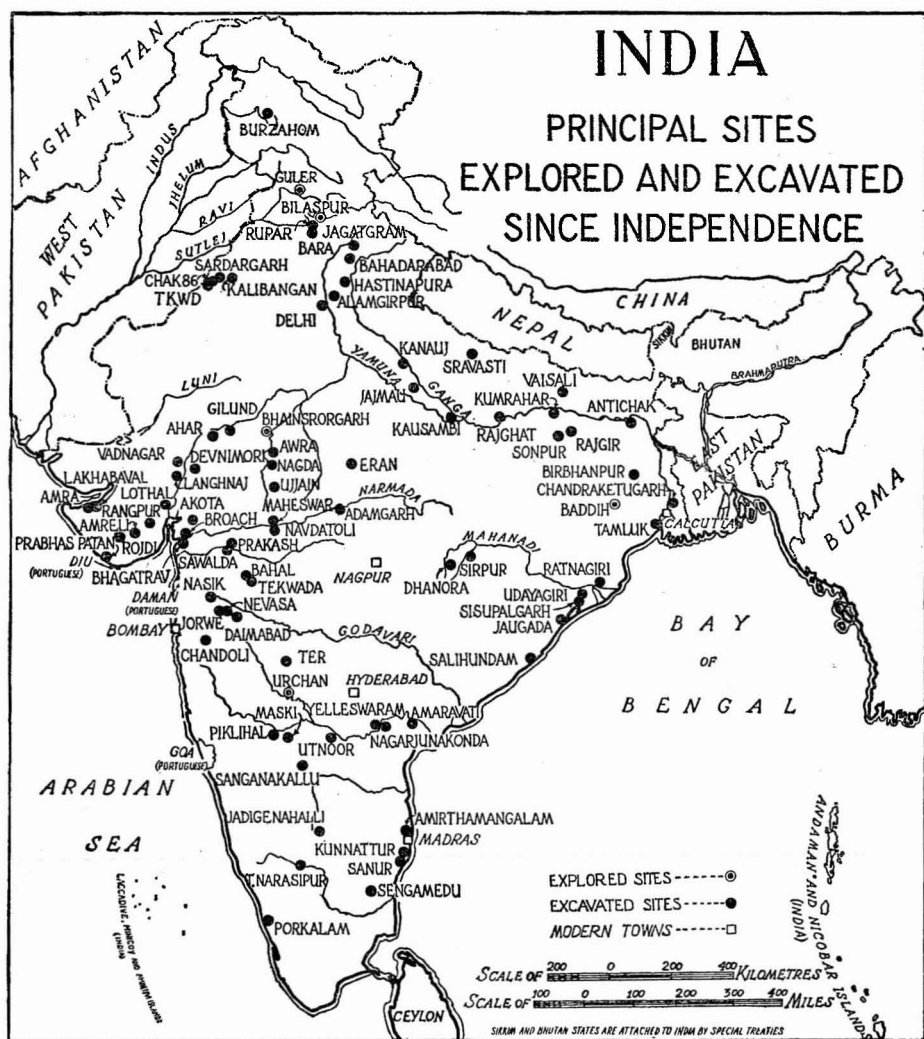


FIG. 1. India (1961). Principal sites explored and excavated since Independence.

hand-axes, cleavers, etc., and the 'Sohan' of the north-west dominated by unifacial 'choppers'. With the Partition (1947), almost all the sites of the latter category passed on to Pakistan. This set Indian prehistorians hard on the job and within hardly a decade they discovered several sites of this culture—e.g. Bilaspur, Daulatpur, Dehra, Guler, Nalagarh, etc.—in the sub-Himalayan foot-hills of Panjab (Fig. 1). As already stated, the most dominant tool-type of this culture is the unifacial 'chopper' (Fig. 2), although bifacial 'chopping-tools', cores and flakes, including

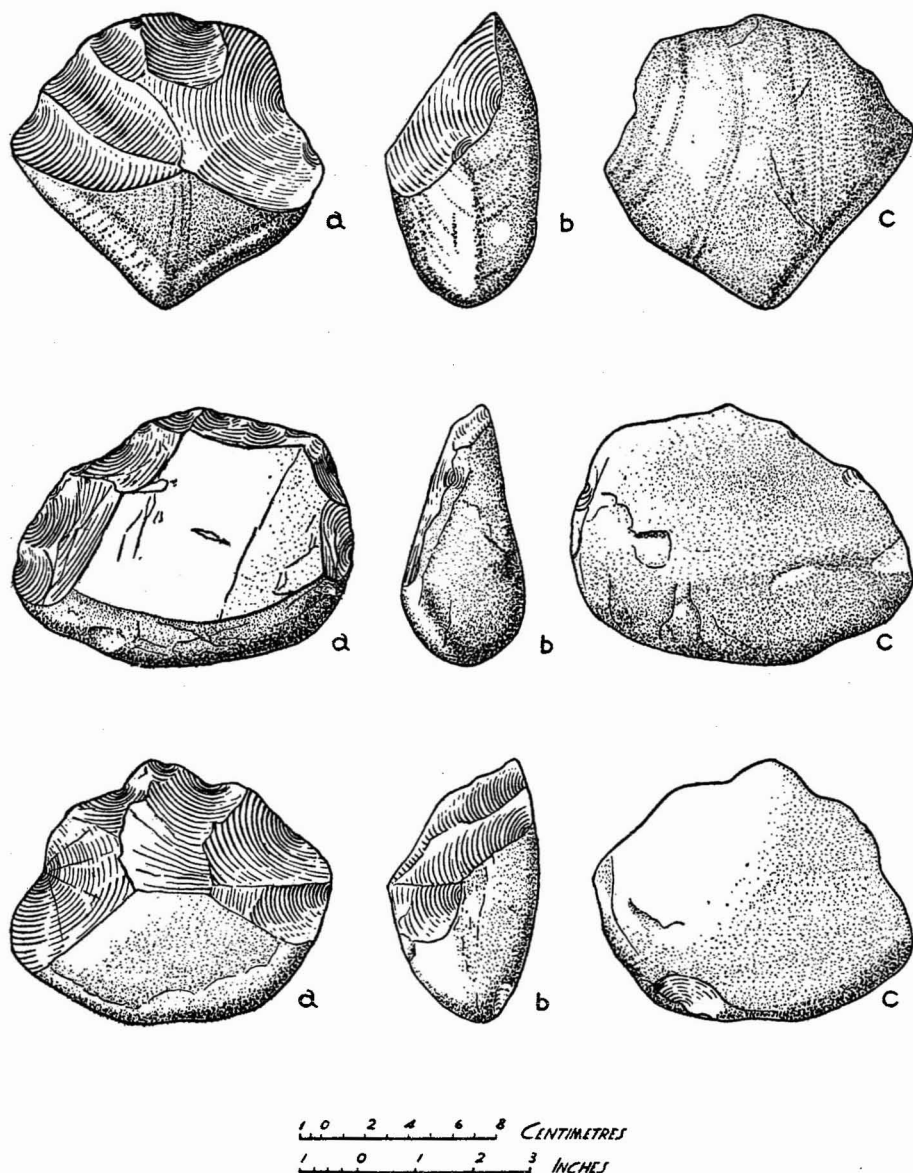


FIG. 2. Guler: Unifacial 'choppers'.

Levalloisian examples, are not wanting. Significant, however, is the absence from these newly-discovered sites of the bifacial cleaver and hand-axe.\* One wonders, therefore, if a re-appraisal of the 'Sohan' culture is really not called for, as varying views are held by scholars regarding the constituents of this culture. Or, if it is not possible just now to re-survey the Sohan sites, it may perhaps be worth while, as an interim arrangement, to regard this now-identified Early Stone Age culture of the sub-Himalyan region as a separate entity, labelling it, say, 'Gulerian', from Guler where not only has a number of tools been found but well-defined terraces have also been observed.

In regard to the 'Madrasian' culture, not only has many a new site been discovered in already known regions but in certain cases new grounds have also been broken. The more noteworthy are the explorations in the districts of: Mirzapur in Uttar Pradesh; Monghyr and Singhbhum in Bihar; Bankura in West Bengal; Keonjhar, Mayurbhanj, Sambhalpur and Sundergarh in Orissa; Guntur and Kurnool in Andhra Pradesh; Belgaum, Dharwar and Tumkur in Mysore; Ahmadnagar, Bombay, Chanda, Nasik, Satara and West Khandesh in Maharashtra; Ahmadabad, Mehsana, etc., in Gujarat; Damoh, Hoshangabad, Mandasor, Narsinghpur and Nimar in Madhya Pradesh; and Bhilwara, Chitorgarh, etc., in Rajasthan.

But the most important work in the realm of the Stone Age, during the decade under review, relates to tools which have been labelled variously as of Series II, Upper Palæolithic or of Middle Stone Age. Although tools of this category had no doubt been reported from a few places even previously, it is only the recent work which has placed them in a well-defined stratigraphic sequence, apart from bringing to light a very large number of sites yielding such tools—from Gujarat in the west to West Bengal in the east and from Rajasthan in the north to Mysore in the south. Made mostly on fine-grained stones like jasper, chert, chalcedony, etc.—in contrast to the usual quartzite of the Early Stone Age—the tools comprise points (in a few cases with an incipient tang), borers or awls, rarely an odd burin, and scrapers of all sorts—round, straight-sided, hollow or notched, convex, etc. (Fig. 3). At Maheswar in Madhya Pradesh, as also at a few other sites elsewhere, the tools have been collected from deposits which are definitely later than the ones yielding the Early Stone Age tools. At Nevasa and Kalegaon, both in district Ahmadnagar, Maharashtra, the tools have been found in association with the remains of *Bos Namadicus*, which lends to them a date within the Pleistocene, maybe in its last quarter.

The microlithic industries of India had been thought in the past, by many a writer on the subject, to belong to a relatively recent date and thus their 'mesolithic' character, in the widely-recognized sense of the term, had largely been doubted. In this connexion, the work at the *Teri* sites of South India, in Mirzapur district in Uttar Pradesh and at Birbhanpur in West Bengal has been most revealing. At the *Teris*, the microliths are associable with a sea-level suggestive of a period prior to

\* The two examples of bifacial hand-axes from Guler were pitted and rolled: the outlines no doubt answered to the general shape, but the flake-scars showing deliberate shaping were few and far between. The specimens had provisionally been listed in the hope that an eye might be kept open for the hand-axe in subsequent explorations of the area. Recent work in the Bilaspur region, however, has not brought in any bifacial hand-axe, not to speak of the cleaver.



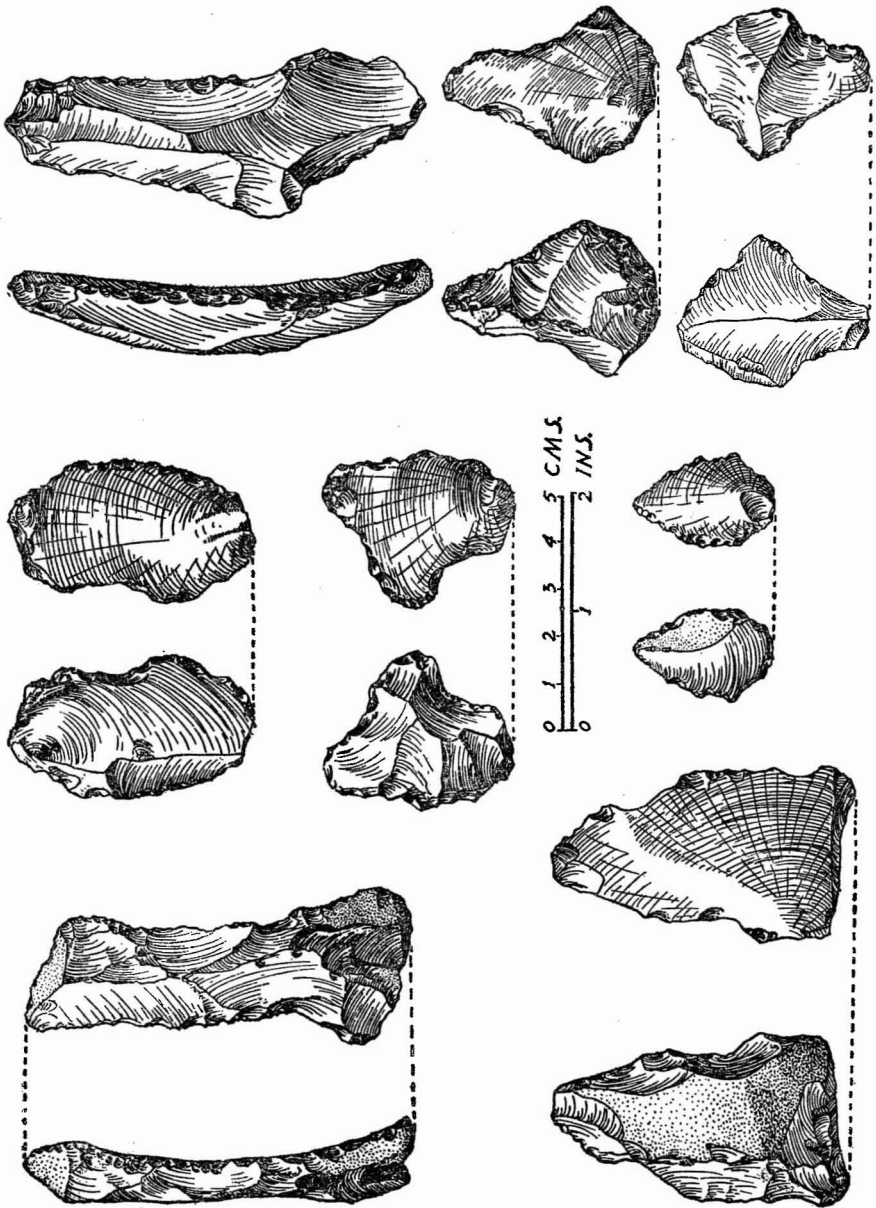


FIG. 3. Tapti valley: Middle Stone Age tools.

4000 B.C. At Birbhanpur, their geological horizon (Fig. 4) may indicate an equally early, if not earlier, date. In all the three areas just mentioned, the tools are, by and large, non-geometric in character and devoid of any association with pottery. Microliths, incorporating the geometric element (e.g. the triangle and trapeze)

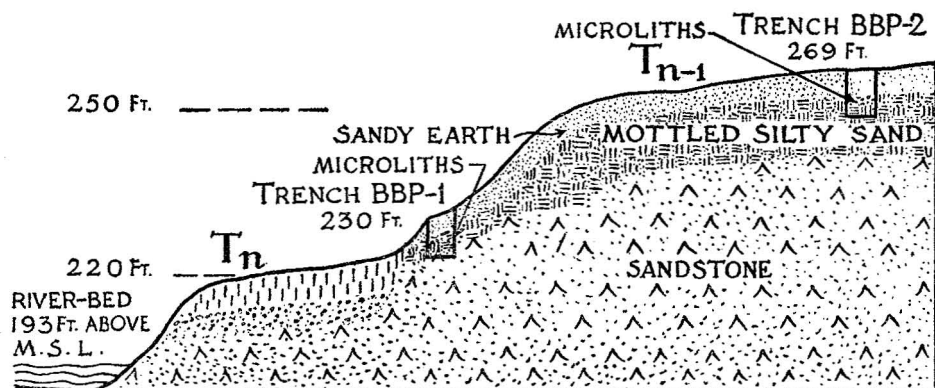


FIG. 4. Damodar terraces near Birbhanpur. Schematic section.

and associated with pottery, have been found at Langhnaj and other associated sites in Gujarat and at Adamgarh in Madhya Pradesh. Thus, with these discoveries, there emerges an intelligible picture of the microlithic or Late Stone Age industries of India.

### THE PROTOHISTORIC PERIOD

Passing out of the Stone Age, one comes to what is known as the 'Protohistoric' period, regarded as ending, by some, with the times of the Buddha (sixth century B.C.) or, by others, with the invasion of Alexander the Great (326 B.C.). Indeed, the period between, say, the middle of the fourth millennium B.C. and the middle of the first millennium B.C. is the period during which was born and nurtured the ancient civilization of India. This synthesized civilization continued to flourish in India all through the historical times, there being only minor additions and modifications with the coming in of the Muslims and the Europeans.

Unfortunately, we do not yet have a clear picture of exactly how man on the Indo-Pakistan subcontinent passed from the food-collecting stage on to that of agriculture and domestication of animals. In the north-west, various early village-cultures, each spreading over a limited time and space, have been identified, but the story is really far from complete.

About the middle of the third millennium B.C., one finds in the valleys of Indus and its tributaries a full-fledged urban civilization known as the Indus civilization, or sometimes as the Harappa culture, from the site where it was first identified. In the 1920s two major sites of this civilization—Harappa and Mohenjo-daro—had been excavated, but as a result of the Partition they passed on Pakistan. On the day of the Partition, in fact, only two known sites, both minor settlements—Kotla Nihang in Panjab and Rangpur in Gujarat—were left in India. But an enthusiastic band of field archaeologists has by now put more than a hundred sites of the Harappa

culture on the Indian map. Of these, four call for special attention: Kalibangan in Rajasthan, Rupar in Panjab, Alamgirpur in Uttar Pradesh and Lothal in Gujarat (Fig. 1).

The site of Kalibangan consists of two mounds, a bigger one on the east and a smaller one on the west. While the eastern mound has yielded regular house plans, with east-west and north-south orientation of the streets, the one on the west seems to suggest the existence of a citadel.\* If this be so, Kalibangan would appear to follow the general lay-out of the cities of Harappa and Mohenjo-daro, and, on their analogy, may be regarded as a provincial capital of the Indus civilization.

From the lower levels of the site also comes some pottery (Pl. Ia) which points to an antecedent culture, the details of which, however, have yet to be gathered.

Amongst the finds from Kalibangan, particular attention may be drawn to certain inscribed potsherds (Pl. Ib); the overlap of their symbols clearly shows that the direction of writing was from the right to the left—indeed a positive step in the tackling of the yet undeciphered Harappan script.

Rupar is to be noted for its stratigraphical sequence (Fig. 5). There are six periods of occupation, yielding, from bottom upwards, the remains of: I, the Harappa culture (here dating perhaps to the first quarter of the second millennium B.C.); II, Painted Grey Ware culture (first half of the first millennium B.C., see below, p. 152); III and IV, early historical cultures, beginning with the Northern Black Polished Ware (c. fifth century B.C.) and ending in the late Gupta remains (c. sixth century A.D.); and V and VI, Medieval times (respectively c. A.D. 800–1000 and c. A.D. 1300–1700). Here it was that the Painted Grey Ware was observed, in a well-stratified sequence, to overlie the Harappan remains.

Alamgirpur, on the bank of the Hindan, a tributary of the Yamuna, in Meerut district of Uttar Pradesh, is the easternmost site known so far of the Harappa culture. The discovery serves not only to show that this culture extended for over 1,500 kilometres across the northern part of the Indo-Pakistan subcontinent but also to emphasize the point that the 'Indus' civilization was indeed trans-Indus and had actually penetrated into the upper regions of the Ganga-Yamuna valley.

Lothal, not very far from the Gulf of Cambay, an inlet of the Arabian Sea, has yielded evidence of a dockyard, made of kiln-burnt bricks and measuring 218 by 37 metres (Pl. Ic). Boats, big enough for coastal trade, seem to have sailed from the Gulf up the river Bhogavo, with which the dockyard was evidently connected by a 7-metre wide channel (identified in the excavation only to some length). That indeed there did operate an overseas trade from Lothal is fully borne out by the discovery at the site of a seal of steatite (Pl. IIa), which is of a type at home at Bahrain and other sites on the Persian Gulf. The Lothal seal may thus be registered as the 'lost property' of one of those engaged on a trade between Iraq and India in the last quarter of the third millennium B.C. Do not the concerned Sumerian documents also seem to point to such a trade?

In the 1940s, the period between the end of the Indus civilization and the invasion of Alexander the Great was regarded as the veritable Dark Age of Indian Proto-history, with hardly an odd flicker here and there, for example the stray finds of

\* The work is still (1963) on and the final position will be known in a couple of years.

‘Copper Hoards’ in the north or the polished stone axes or megaliths in the south. But none of these gave any definite bearing. The work at Brahmagiri in 1947 put the two south Indian cultures just mentioned in some stratigraphic order, but north India continued to remain ‘dark’ until an extensive search brought to light the Painted Grey Ware (Pl. IIb) from a large number of sites in the Ganga, Yamuna and Sarasvati valleys. The exploration was followed, during 1950–52, by an excavation at Hastinapura on the bank of the Ganga in district Meerut, Uttar Pradesh,



FIG. 5. Rupar: Culture sequence.

which, according to the Indian epic *Mahābhārata* was the capital of the Pandavas. Five cultural periods were identified, the earliest, I, yielding a red ochrous ware which is surmised on some circumstantial evidence to be associated with the 'Copper Hoards'. Subsequent work at Bahadarabad, further up the Ganga, also pointed to the same direction, but conclusive proof, may it be added, is still to be had. Further, it has also to be worked out if and what relationship the copper hoard-cum-Ochrous Ware culture bears with the Harappa culture itself.

Period II of Hastinapura was characterized by the Painted Grey Ware. The inhabitants were in a rural stage of economy: they lived in houses of mud or wattle-and-daub, carried on agriculture and kept domesticated animals, amongst which particular mention may be made of the horse. To begin with, they seem to have used only copper but a little later they wielded iron as well. A great flood in the Ganga washed away a major portion of the Painted Grey Ware settlement at Hastinapura (Pl. IIc); and, as it is, the archæological findings seem circumstantially to confirm the literary evidence that after the washing away of Hastinapura by the Ganga the capital was shifted to Kausambi (below, p. 156).

Period III of Hastinapura, characterized by the Northern Black Polished Ware, is assignable, in very broad terms, to the second half of the first millennium B.C. The preceding culture, viz. that associated with the Painted Grey Ware, may, therefore, be placed in the first half of that millennium, with a probable intrusion into the second millennium B.C.

The gap, thus, has been narrowed, but there is still another half-a-millennium or so to cover. The work is on, and the goal not altogether out of sight!

In northern India, another significant discovery has been registered during the decade under review. It relates to a culture designated as the Ahar or Banas culture and characterized by a white-painted black-and-red ware. Broadly, this culture is assignable to the second quarter of the second millennium B.C., and may have co-existed with the Harappa culture during latter's fag end.

So far as protohistory is concerned, central India and northern Deccan were practically *terra incognita* prior to the fifties. Extensive work during the decade, however, has shown that there did exist regular settlements of chalcolithic people in the various river valleys of the region, some of them going as far back as the first quarter of the second millennium B.C. Amongst the more important sites of this chalcolithic complex, mention may be made of: Navdatoli, Nagda, Eran, and Tripuri in Madhya Pradesh, and Prakash, Bahal, Nasik, Jorwe, Nevasa, Daimabad and Chandoli in Maharashtra (Fig. 1). Though much work still remains to be done, on the present showing these sites may be divided into two broad groups, one covering the Narmada, Chambal and allied valleys of central India and the other having the upper Godavari valley as the focus. Navdatoli and Jorwe respectively may provisionally be regarded as the type-sites of the respective groups.

At Navdatoli, the culture is characterized by, besides microlithic blades of chalcedony, agate, etc., and flat axes, fishhooks, pins and rings of copper, a typical black-on-red pottery called the Malwa Ware, two of the more distinctive shapes in it being the channel-spouted bowl and the stemmed chalice (Pl. IIIa). The inhabitants lived in oblong or circular huts made by the plastering up with mud of a framework of wooden post-cum-bamboo screen. The principal occupations of the

people seem to have been agriculture, domestication and hunting of animals and fishing. Amongst the cultivated cereals, special mention must be made of the rice, being the earliest (sixteenth century B.C.) definite example so far discovered in India.

Basing his arguments on the similarity of certain pot forms, particularly, the channel-spouted bowl, with their possible counterparts in Iran, the excavator is inclined to think that the central Indian chalcolithic culture is of Iranian import. He is further inclined to see the Aryans in the bearers of this culture. However, before ideas get hardened, two other approaches to the issue should not be overlooked altogether. At Lothal, one comes across a transmutation of the Harappa culture itself, which process is further continued at a neighbouring site called Rangpur. But whether and how far these survivals of the Harappa culture actually contributed to the make-up of the central Indian chalcolithic culture are matters for future research to decide. The other approach would be to find out as to what happened to the central Indian microlithic people whose traces are met with at many a place in that region. As regards the equation of the central Indian chalcolithic people with the Aryans, it must not be forgotten that the horse, a prominent animal in the Vedic literature, has not so far been reported from any of the sites of the culture.

The Upper Godavari or better say the northern Deccan chalcolithic culture, later than the central Indian one by about three centuries, is marked by a matt-surfaced, black-on-red ware, called the Jorwe Ware, the more prominent types being the carinated bowl and vase with tubular spout (Pl. IIIb). There are two other noteworthy cultural traits which distinguish it from its central Indian counterpart, viz. pot burials (Pl. IIIc) and polished stone axes. These traits were perhaps derived by the northern Deccan chalcolithic culture from a late phase of the southern Neolithic culture, the latter receiving in return not only the black-on-red pottery but perhaps also the copper element (below). A particularly noteworthy discovery in the context of the northern Deccan chalcolithic culture is that of a thread of silk with which were strung the beads of a necklace bedecking a dead at Nevasa. This is the earliest (13th century B.C.) example of silk so far found in the country.

To come to South India. It has already been stated that the excavation at Brahmagiri in 1947 had placed the two major cultures of the pre-Christian era, viz. the Polished Stone Axe culture (called here the southern Neolithic culture) and the Megalithic culture in their proper stratigraphical context. The clues were immediately followed up at Sanganakallu and later on, during the decade under review, at Utnur and Nagarjunakonda in Andhra Pradesh and Piklihal, Maski and T. Narasipur in Mysore State. As a result of these excavations, two phases of the southern Neolithic culture seem to be recognizable: an earlier one, which may be regarded as 'true neolithic', characterized by burnished grey and buffish-grey wares, extended and urn-burials and polished stone axes; and a later one, in which the black-on-red ware and copper implements also make their appearance. In respect of the earlier phase, the excavation at Utnur is singularly enlightening. In the first place, it has demonstrated that the 'ash mounds', which have been the subject-matter of a controversy in recent years, are, in all likelihood, cattle pens (*cf.* Pl. IVa). Secondly, a charcoal sample from the site has given the Carbon-14 determination as  $4120 \pm 150$  B.P., showing that South India was inhabited by these neolithic people



roughly at a time when the Harappans occupied the north-west. Indeed, there is no longer any justification for keeping the map of South India a blank late in the third millennium B.C.

In regard to the Megalithic culture, much welcome light has been thrown in recent years by the excavations at: Sanur, Kunnattur, Amrithamangalam and Sengamedu in Madras State; Jadigenahalli and T. Narasipur in Mysore State; Porkalam in Kerala; and Nagarjunakonda, Yelleshwaram and Maski in Andhra Pradesh. Usually, fractional burial and lithic appendage of one kind or another are regarded as essential features of the Megalithic complex, in addition, of course, to the Black-and-red Ware. The excavation at Maski, however, has shown the existence of all the possible variations, viz. fractional burial with the lithic element or without it, and full burial, again, with the lithic element (Pl. IVc) or without it. This might indicate that Maski stands perhaps at a transitional stage. Thus, as recent discoveries have demonstrated a high antiquity for the black-and-red ware technique in India, e.g. at Ahar and Lothal, it would be worth while to probe systematically into the moorings of the Megalithic culture itself.

Two more areas must be referred to, even though the résumé has got to be brief. One is eastern India, and the other the valley of Kashmir in the extreme north-west.

In eastern India, sites like Tamluk, Sisupalgarh, Jaugadha, etc. give a reasonable picture of the early historical times. But the picture prior to this period and after the Late Stone Age is rather hazy. Ascribable to this intervening period, at the moment, are two vaguely defined cultures: one characterized by polished stone axes with oblong cross-section (Fig. 6) and a coarse brown ware; and the other indicated by the stray finds of copper or bronze axes. There might fall within this period a few other elements too, and it is but meet to emphasize the need for a more systematic work on the protohistory of this area.

To turn to Kashmir. At Burzahom, not far from Srinagar, De Terra had noted, some three decades ago, a complex of huge stones vaguely resembling megalithic menhirs. In a trial excavation at the site, he had also discovered polished stone axes and grey and black wares. As, however, the picture was far from clear and as, during the intervening period, fanciful theories about the identity of the two wares had begun to grow—the grey one being equated with the grey ware of a post-Harappan culture identified at Jhukar in Pakistan and the black ware with the well-known Northern Black Polished Ware, it was thought worth while to excavate the site once again, on a large scale. Accordingly, work was commenced over here in 1960 and is still (1963) in progress.

The excavation has revealed that the earliest inhabitants of Burzahom were essentially in a neolithic stage, using polished stone axes and bone tools, the latter comprising harpoons, needles, chisels, etc. (Pl. IVb). The pottery was a burnished grey ware, often with mat-impressed designs on vase bases—incidentally, quite different from the Jhukar ware. But the most unusual thing about these people was that they dwelt in pits. Roughly circular on plan, the pits had a narrow mouth (1–2 metres in diameter), tapering sides and wide bottom (2–4 metres in diameter; Pl. Vb). In depth, they ranged from 1.50 metres to 3 metres, there also being provision of landing steps in the deeper ones. The presence of post-holes along the mouth in certain cases suggests that some kind of a roofing was provided for. In the course

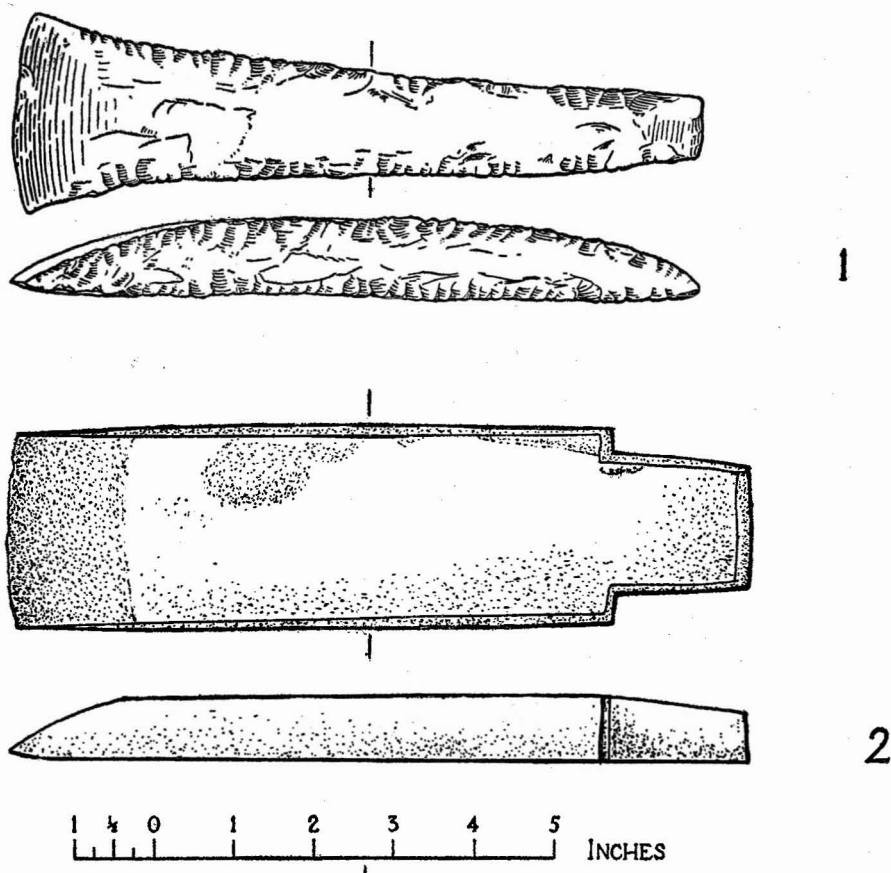


FIG. 6. 1, stone 'bar celt' from Ban Asuria, West Bengal, and 2, stone shouldered celt from Amsigada, Orissa.

of time, these pits gave way to mud and mud-brick houses, and a burnished black ware—quite different from the Northern Black Polished Ware (*cf.* above)—also came into being. Following this second phase was the one to which the menhirs may be ascribed. The fourth or latest phase at the site was, however, of the early historical times.

The discovery of this north-western Neolithic culture (as the earliest culture of Burzahom may provisionally be labelled) is indeed unique, particularly because of the bone tools. Outside the valley, no other site of this kind has so far been located in the country. Thus, for parallels we may have to look further to the north-west, beyond the confines of India.

#### COMING TO HISTORICAL ARCHÆOLOGY

Protohistory may be dull and dry if not tagged on to history and historical personages. Thus, in conclusion, attention may be drawn to the excavation of a few early historical sites of northern and central India: Vaisali in Bihar, Kausambi, Sravasti and Rajghat in Uttar Pradesh and Ujjain in Madhya Pradesh. These were

the capitals of the concerned *Mahājanapadas* (=Great Kingdoms) which flourished during the time of the Buddha. At the first-named site have been unearthed the remains of a *stūpa* (Pl. Vlb) which, it is believed, was built by the Lichchhavis over their share of the relics of the Buddha. At Kausambi has been found an inscription bearing testimony, if such were needed, to the visit of the Buddha to the site. The visit, as we know from the literature, was at the request of Udayana, then the king of Kausambi, whose stone-built palace is also claimed to have been identified. The defences around the site are mighty—and mighty is really no exaggeration in this case, for even today the burnt-brick revetment may be seen shooting skywards to a height of over thirteen metres (Pl. Va). Defences have also been identified at the other sites, viz. Sravasti, Rajghat and Ujjain, the last-named site also yielding interesting evidence of an ironsmith's workshop (Pl. VIa).

### SELECT BIBLIOGRAPHY

In consonance with the foregoing résumé the bibliography that follows has also got to be brief. Thus, only the more noteworthy publications during the decade are listed. Under the circumstances, authors whose publications do not find a mention here are requested kindly to pardon the present writer for the omission.

Secondly, as the bibliography lists publications only during the concerned period, it is just possible that it may not include references to all that is mentioned in the foregoing résumé. For, detailed reports on excavations and explorations are often published quite some time after the events, and newspapers and periodicals carrying interim notices may not be easily accessible abroad.

A third point also deserves to be mentioned. For the very reason that full reports on field work are published much later than the field work itself, it would so happen that some of the publications which appeared during the decade under review, and are, therefore, listed below, might refer to an earlier work not referred to at all in the résumé.

ALLCHIN, B.

- 1959 The Indian Middle Stone Age: some new sites in Central and Southern India, and their implications, *Bulletin of the University of London Institute of Archaeology*, 2: 1-36.

ALLCHIN, F. R.

- 1960 *Piklihal Excavations*, Andhra Pradesh Government Archaeology Series, 1. Hyderabad.

ALTEKAR, A. S.

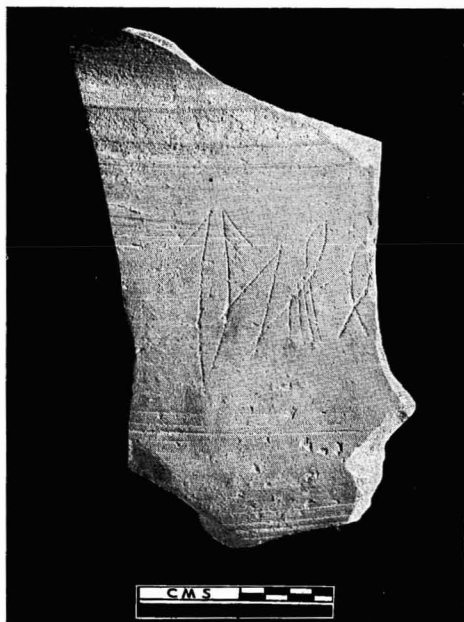
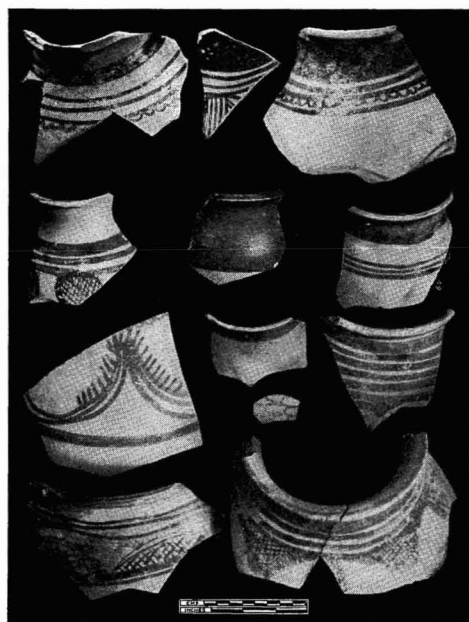
- 1958 The corporeal relics of the Buddha, *Journal Bihar Research Society*, Buddha Jayanti Special Issue, 2.

BANERJEE, N. R.

- 1956 The megalithic problem of Chingleput in the light of recent explorations, *Ancient India*, 12: 21-34.  
 1956- The Excavations at Nagda, *Transactions of the Archaeological Society of South India*,  
 1957 1956-57, 8-12.  
 1960 The Excavations at Ujjain, *Indologen-Tagung 1959*: 74-86. Gottingen.  
 1960 Le problème des mégalithes aux Indes, *Antiquités Nationales et Internationales*, 3-4: 63-74. Paris.

BANERJEE, N. R. and SOUNDARARAJAN, K. V.

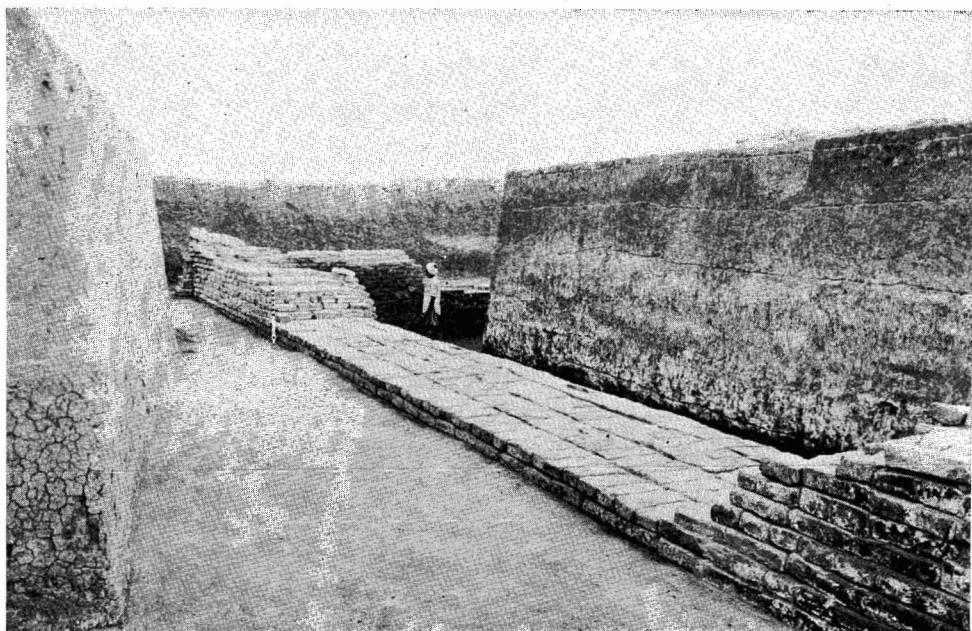
- 1959 Sanur 1950 and 1952: a megalithic site in District Chingleput, *Ancient India*, 15: 4-42.



## KALIBANGAN :

*a.* Pre-Harappan pottery (see p. 150)

*b.* Inscribed potsherd from a Harappan level  
(see p. 150)



*Archæological Survey of India*

LOTHAL: *c.* Passage for boats in the dockyard embankment (see p. 150)

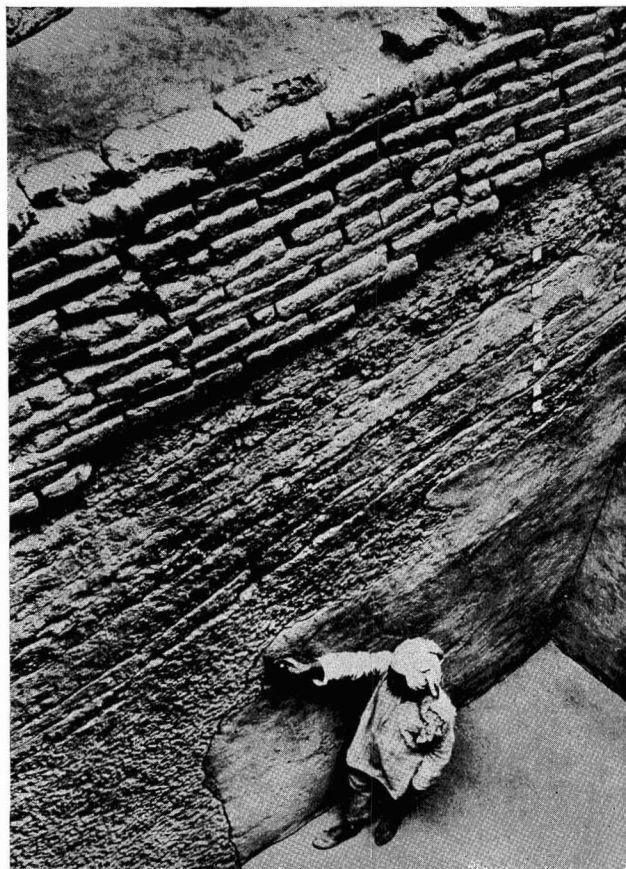
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a. LOTHAL: 'Persian Gulf' seal (see p. 150)



b. RUPAR and AHICHCHHATRA: Painted Grey Ware (see p. 151)



*Archaeological Survey of India*

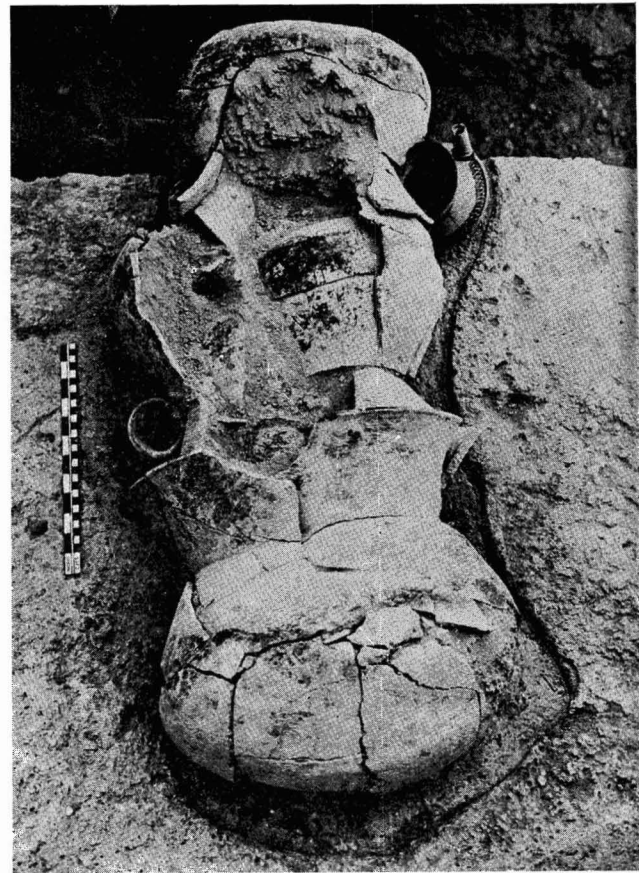
c. HASTINAPURA: Erosion scar made by the Ganga floods which devastated the Painted Grey Ware settlement (see p. 152)



a. NAVDATOLI: Chalcolithic pottery (see p. 152)



*Deccan College Post-graduate and Research Institute, Poona*  
b. NEVASA: Jorwe Ware (see p. 153)



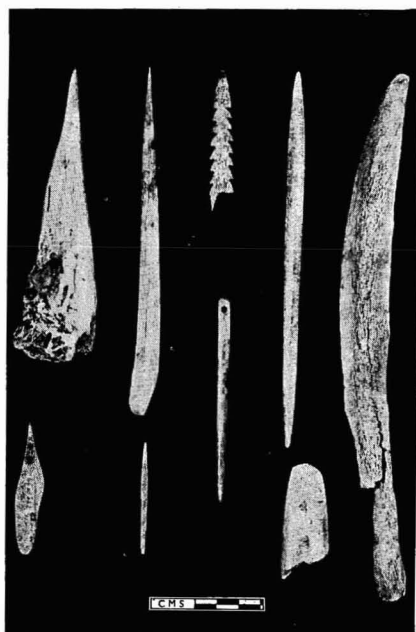
c. DAIMABAD: Urn burial (see p. 153)



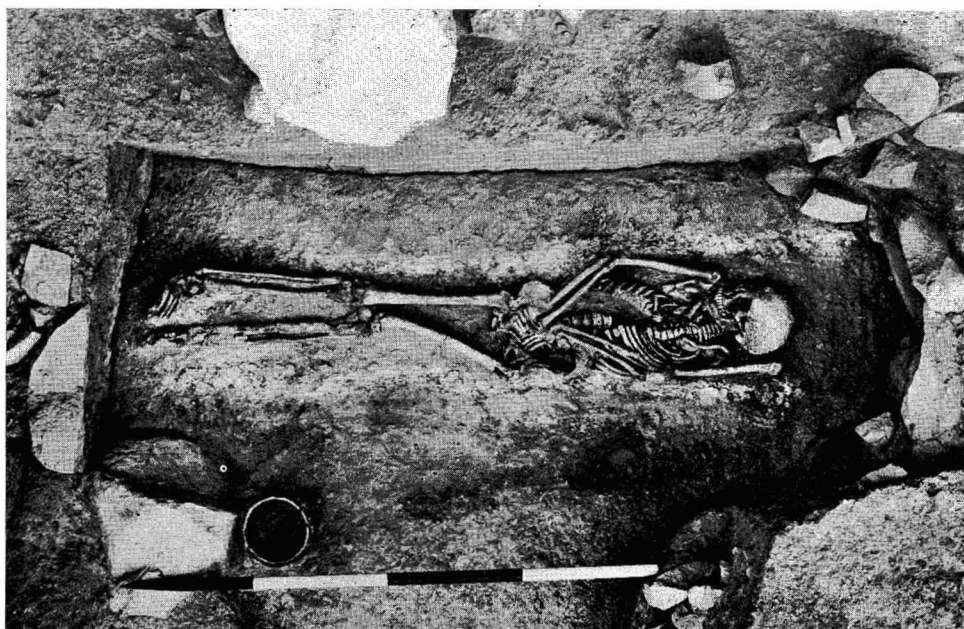


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a. UTNUR: Hoof impressions, after lifting  
(see p. 153)

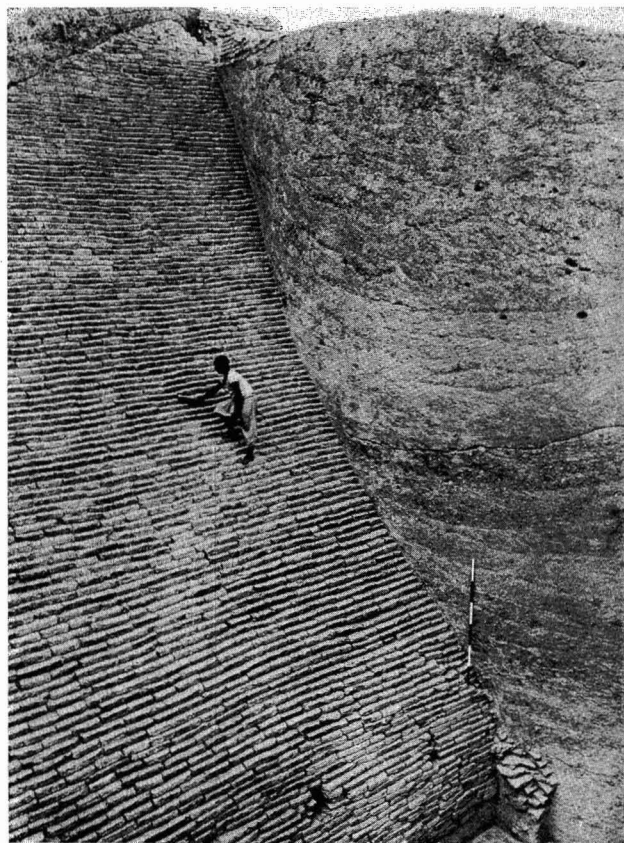


b. BURZAHOM: Bone tools (see p. 154)



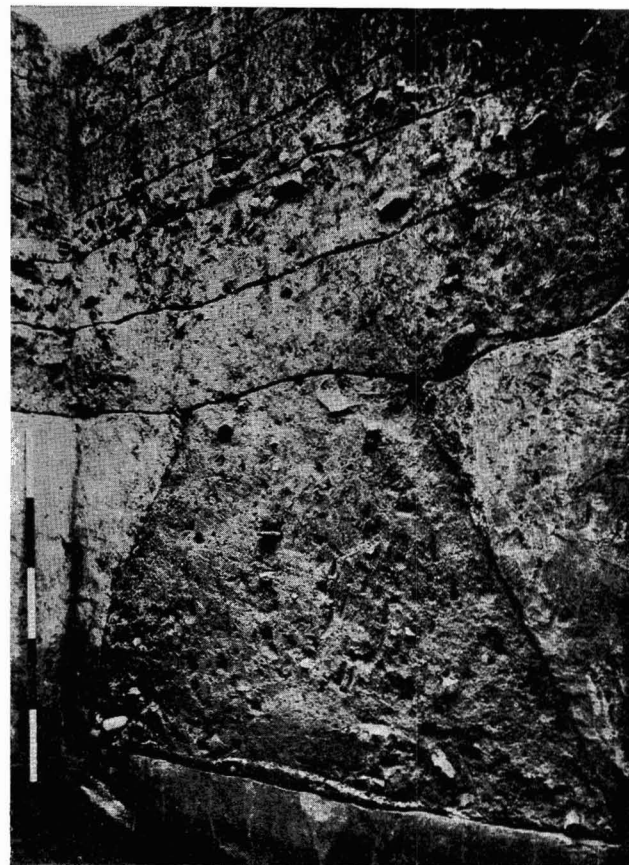
c. MASKI: Megalithic burial (see p. 154)

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*Allahabad University*

*a.* KAUSAMBI: Brick revetment of defences (see p. 156)



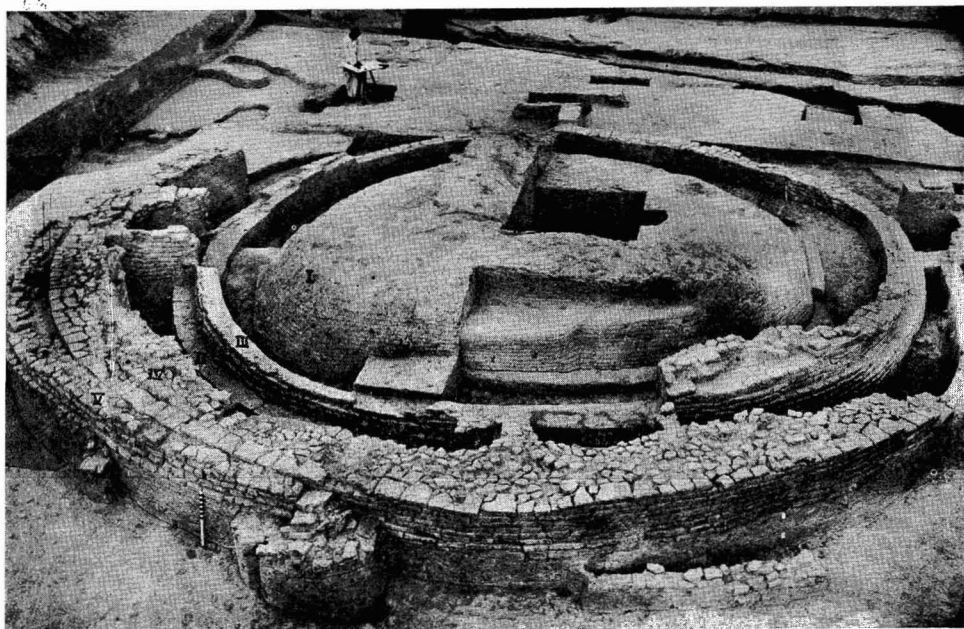
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*b.* BURZAHOM: Dwelling pit (see p. 154)



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a. UJJAIN: Ironsmith's furnace (see p. 156)



*K. P. Jayaswal Research Institute, Patna*

b. VAISALI: Stupa with five periods (see p. 156)

BOSE, N. K., GUPTA, P. and BOSE, A.

1960 Palaeoliths in Monghyr District, Bihar, *Man in India*, 40(1): 68-75.

DANI, A. H.

1960 *Prehistory and Protohistory of Eastern India*. Calcutta.

DIKSHIT, M. G.

1955 *Tripuri—1952*. Nagpur.

FAIRSERVIS JR, W. A.

1956 The chronology of the Harappan Civilization and the Aryan invasion: recent archaeological research, *Man*, 56: 153-56.

GHOSH A.

1952 The Rajputana Desert—its archaeological aspect, *Bulletin, National Institute of Sciences of India*, 1: 37-42.

1960 A survey of the recent progress in early Indian archaeology, *Indologen-Tagung 1959*, 40-50. Gottingen.

1960 *Indian Archaeology*. New Delhi.

GORDON, D. H.

1958 *The Prehistoric Background of Indian Culture*. Bombay.

HEINE-GELDERN, R.

1956 The coming of the Aryans and the end of the Harappan Civilization, *Man*, 56: 136-140.

HERAS, H. S. J.

1953 *Studies in Proto-Indo-Mediterranean Culture*, vol. I. Bombay.

JOSHI, R. V.

1955 *Pleistocene Studies in the Malaprabha Basin*. Poona-Dharwar.

KHATRI, A. P.

1957 Palaeolithic industry of River Shivna, *Bulletin Deccan College Research Institute*, 18: 159-72. Taraporewala.

1959 Stone Age tools of the Gambhiri Basin, *Journal of the University of Bombay*, 26(4): 37-49.

KRISHNASWAMI, V. D.

1953 Progress in prehistory, *Ancient India*, 9: 53-79.

KRISHNASWAMI, V. D. and SOUNDARARAJAN, K. V.

1951 The lithic tool-industries of the Singrauli Basin, District Mirzapur, *Ancient India*, 7: 40-65.

LAI, B. B.

1951 Further copper-hoards from the Gangetic Basin and a review of the problem, *Ancient India*, 7: 20-39.

1953 Protohistoric investigation, *Ancient India*, 9: 80-102.

1954 Palaeolithic industries of the Indian subcontinent, *Journal of World History*, 1(3): 505-17.

1954-1955 Excavation at Hastinapura and other Explorations in the Upper Ganga and Sutlej Basins, *Ancient India*, 10-11: 5-151.

1956 Palaeoliths from the Beas and Banganga Valleys, Panjab, *Ancient India*, 12: 58-92.

1958 Birbhanpur: a microlithic site in the Damodar Valley, West Bengal, *Ancient India*, 14: 4-48.

LOHUIZEN DE LEEUW, J. VAN

1955 Note sur un groupe de constructions se trouvant dans la zone H. R. de Mohenjo-daro, *Art Asiatiques*, 2(2): 145-149.

1960 Protohistorische culturen van voor Indië En Hun Datering. Leiden.

MALIK, S. C.

1959 *Stone Age Industries of the Bombay and Satara Districts*. Baroda.

MODE, H.

1959 *Das Frühe Indien, Grosse kulturen der Frülzeit*. Stuttgart.

MOVIUS, JR. H. L.

1957 Pebble-tool terminology in India and Pakistan, *Man in India*, 37: 149-156.

RAMACHANDRAN, T. N.

1957- New light on Indus Valley Culture, *Transactions of the Archaeological Society of South*

1958 *India, 1957-58*: 38-54.

RAO, S. R.

1956- The excavations at Lothal, *Lalit Kalā*, 3-4: 82-89.

1957

RYDH, H.

1958 *Rang Mahal: the Swedish Archaeological Expedition to India, 1952-1954*. Lund.

SANKALIA, H. D.

1952 *The Godavari Palaeolithic Industry*. Poona.

1955 Excavations at Langhnaj, Gujarat, *Man*, 55: 26.

1956 Animal-fossils and palaeolithic industries from the Pravara Basin at Nevasa, District Ahmadnagar, *Ancient India*, 12: 35-52.

SANKALIA, H. D. and BANERJEE, K. D.

1958 The Middle Palaeolithic Culture of the Deccan, Karnatak and Central India, *Journal Palaeontological Society of India*, 3: 158-69.

SANKALIA, H. D. and DEO, S. B.

1955 *Report on the Excavations at Nasik and Jorwe*. Poona.

SANKALIA, H. D., DEO, S. B., ANSARI, Z. D., and EHRHARDT, S.

1960 *From History to Prehistory at Nevasa*. Poona.

SANKALIA, H. D., SUBBARAO, B. and DEO, S. B.

1958 *The Excavations at Maheshwar and Navdatoli 1952-53*. Poona-Baroda.

SANKALIA, H. D., SUBBARAO, B. and JOSHI, R. V.

1951 Studies in the prehistory of Karnatak, *Bulletin, Deccan College Research Institute*, 11: 56-83.

SARKAR, S. S.

1960 Human skeletal remains from Brahmagiri, *Bulletin of the Department of Anthropology*, 9(1): 5-25.

SEN, D.

1955 Nalagarh Palaeolithic Culture, *Man In India*, 35(3): 176-84.

1957 The Soanian and the pebble tool terminology in India, *Man in India*, 37(2): 157-59.

SEN, D. and CHATURVEDI, UMA

1957 Microlithic industry of Singhbhum, *Man in India*, 37(4): 294-304.

1958 Further studies in Singhbhum neolithic typology, *Man in India*, 38: 176-185.

SEN, D. and GHOSH, A. K.

1960 On the occurrence of palaeoliths in Singhbhum, *Man in India*, 40(3): 178-91.

SHARMA, G. R.

1960 *Excavations at Kausambi*. Allahabad.

SHARMA, Y. D.

1953 Exploration of historical sites, *Ancient India*, 9: 116-69.

1955- Past patterns in living as unfolded by excavations at Rupar, *Lalit Kalā*, 121-129.

1956

SESHADRI, M.

1956 *The Stone-using Cultures of Prehistoric and Protohistoric Mysore*. London.

1960 *Report on the Jadigenahalli Megalithic Excavations for the year 1957*. Mysore.

SOUNDARARAJAN, K. V.

- 1952 Stone Age industries near Giddalur, District Kurnool, *Ancient India*, **8**: 64-92.
- 1958 Studies in the Stone Age of Nagarjunakonda and its neighbourhood, *Ancient India*, **14**: 49-113.
- 1960 Middle Stone Age sites from Kaira District in Gujarat, *Journal of Oriental Institute Baroda*, **10**(2): 167-79.

SRINIVASAN, K. R. and BANERJEE, N. R.

- 1953 Survey of south Indian megaliths, *Ancient India*, **9**: 103-15.

SUBBARAO, B.

- 1952 Archæological explorations in the Mahi Valley, *Journal M.S. University of Baroda*, **1**: 33-69.
- 1956- Some problems in the archæology of South India, *Transactions of the Archæological Society of South India*, 1956-57, 62-77.
- 1958 *The Personality of India*. Baroda.

THAPAR, B. K.

- 1952 Porkalam 1948: Excavation of a megalithic urn-burial, *Ancient India*, **8**: 3-16.
- 1959 Maski: A chalcolithic site of the southern Deccan, *Ancient India*, **13**: 4-142.

WHEELER, MORTIMER

- 1959 *Early India and Pakistan*. London.
- 1960 *The Indus Civilization*. The Cambridge History of India Supplementary Volume, Cambridge.

ZEUNER, F. E.

- 1952 The microlithic industry of Langhnaj, Gujarat, *Man*, **52**: 129-131.

ZEUNER, F. E. and ALLCHIN, B.

- 1956 The microlithic sites of Tinnevely District, Madras State, *Ancient India*, **12**: 4-20.

The reader's attention is invited also to the yearly numbers of *Indian Archæology—A Review* and *Ancient India*, both published by the Archæological Survey of India, and to the *Annual Bibliography of Indian Archæology*, 16-17, for the years 1948-53 and 1954-57, published (1958 and 1963) by the Kern Institute, Leyden.